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ABSTRACT

The Family Development Research Program was distinctive in its omnibus conceptualization of program, providing a full complement of education, nutrition, health and safety, and human service resources to 108 families from the prenatal period of their children until the children reached elementary school age. All families had an income of less than $5,000 per year. The majority of mothers were black and single parent heads of households, and all mothers had less than a high school education and a history of either semiskilled work or no work. Their mean age was 18 years. The intervention was designed to support parent strategies which enhanced the development of the child long after intervention ceased. Weekly contact with mothers and other family members in the home of each child was the key intervention component. Home visitors were employed to assist each family with issues of child rearing, family relations, employment, and community functioning. Findings of a longitudinal follow-up survey 10 years after the program indicated that it had clearly had a positive impact on participating children and families, with its strongest effects in the domain of social deviance and functioning in the community. (RH)

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# The Syracuse University Family Development Research Program: Long-Range Impact of an Early Intervention with Low-Income Children and Their Families

September, 1987

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# THE FAMILY DEVELOPMENT RESEARCH PROGRAM

## Section One

## History of the Project

Varieties of innovative intervention programs arose in the 60's and 70's. Their goal was to break the well documented link between low-education, low-income households and children's later educational difficulties. Some programs focused on preschoolers, some on infants, and some on parents (Honig, 1979; Lazar & Darlington, 1982). The Family Development Research Program (FDRP) was distinctive in its omnibus conceptualization of program. A full complement of educational, nutrition, health and safety, and human service resources were provided to 108 families beginning prenatally until children reached elementary school age (Honig, 1977; Honig & Lally, 1982; Lally & Honig, 1977a).

Very deprived families were recruited into the Family Development Research Program early in the last trimester of pregnancy. All the families had an income of less than $5,000 per year (in 1970 dollars). Mothers had less than a high school education, and no work or semiskilled work history. Their mean age was 18 years and over 85% were single parent heads of households. Despite energetic attempts to maintain racial balance in the program, the majority of families served were black.

The Family Development Research Program was an attempt to improve the "well being" of these children born into environments sparse in the benefits that money, education and job status can bring. It was hoped that during these children's first five years of life a program of weekly attention to the issues and events in the family and community environment, coupled with supportive assistance in dealing with those issues would serve to bolster family and child functioning. Additionally it was assummed that if parents could be certain that their child would receive 5 continuous years of quality day care, this would greatly assist families meet the life challenges they faced and also positively influence the perceptions, emotions and intellect of the children served.

The major thrust of the intervention was to influence and have impact on the more permanent environment of the child, the family, and the home and to support parent strategies which enhance the development of the child long after intervention ceased. The pursuit of this goal led to an intervention strategy that viewed parent contact as the primary intervention with child care as supplementary, rather than, as most child centered progams of the time were structured, enriched child care as the core of the program and parent contact as outreach. In actual operation, however, both components became crucially important and integrated aspects of the comprehensive and long term intervention.

Weekly contact with mothers and other family members in the home of each child was stressed as the key intervention component. Home visitors were employed to assist each family with issues of child-rearing, family

relations, employment and community functioning. The approach of this home visit component was nonjudgemental family advocacy and oriented toward assisting families to become aware of and operate in the various systems in their environment. Staff were trained and instructed to act in support of rather than as substitutes for parents, to encourage the individual and cultural strengths of each family, and to treat parents as partners in providing children with rich environments.

The families were provided with child care for 50 weeks a year for the first five years of the program children's lives (one-half day care, five days a week from 6 months to 15 months of age and full day care, five days a week from 15 months of age to 60 months of age). Day care services, at Syracuse University Children's Center, were designed so that children could expect to be treated fairly and with loving kindness by adults and other children in a secure and consistent setting, that they would come to expect daily educational experiences, and that they would see the resources of their child care community as available for their use and to meet their needs. The staff functioned under the agreed upon assumptions that these children were capable of: 1) learning something about anything in which they showed interest; 2) learning to understand that their actions and choices had an impact on others; 3) learning that cooperation and concern for the rights of others would ultimately allow them to express their own creativity, excitement, curiosity, and individuality more fully; 4) learning that wonder and exploration were encouraged by adults; and 5) imitating the actions of staff toward children and other adults. Additionally, these children were treated as special creations, each with particular skills and specialties that would be appreciated by and useful to the larger society and that these special powers would be protected and allowed to rise to ascendance by the adults who spent the daytime hours with them. In summary, the context that was fostered set a daily tone of freedom of choice and awareness of responsibility; an expectation of success in each child; confidence in the fairness and consistency of the environment; an emphasis on creativity, excitement and exploration in learning; expectation of internal rather than external motivation; and a safe, cheerful place to spend each day.

## Theoretical Foundations

Five theoretical rationales shaped the goals and objectives of the intervention program. Piagetian equilibration theory, which stresses judicious provision of toys, materials, and human interactions in sensitive relationship to the developing abilities and understandings of the child, helped to shape the infant curriculum both in the home and center. Piaget's attention to the crucial importance of <u>active</u> child participation in the construction of knowledge was also emphasized.

Language developmental theories suggested that adult modeling and expansion of child language, contingent responsiveness to early infant coos and babbles, interactive turn-taking talk, and frequent book reading would increase child language repertoire (Bernstein, 1964).

Erikson's theory of each child developmental stage as, optimally, the positive outcome of a series of nuclear conflicts or struggles between opposing emotional ajustments and attunements, focused program concern on the development of basic trust, sturdy autonomy, and learning initiatives in the children served (Erikson, 1950).

Saul Alinsky's (1971) theory of community organization shaped the way in which FDRP personnel perceived their role in the community served and the tone with which parent contacts were maintained. Alinsky had theorized that "To give people help while denying them a significant part in the action contributes nothing to the development of the individual. In the deepest sense it is not giving but taking--taking their dignity" (p. 123).

From John Dewey and the British Infant School movement, the FDRP project drew the concepts of the importance of freedom of choice for children, encouragement of creativity, and design of an environment that supports exploration in a spatial rather than exclusively time-bounded organization of programmatic offerings.

The Parent Involvement Component

The major premise of the FDRP was that parents are the primary teachers and sustaining caregiving persons in a young child's life. Affective and interpersonal relations with the parent would have a profound impact on the learning motivation and competence of the developing infant. Thus, the major thrust of the intervention program was to maximize family functioning. Specifically, a cadre of paraprofessionals, called Child Development Trainers (CDTs), was recruited and trained intensively to work with families, particularly with young mothers of first- or second-born children beginning prior to birth of the baby.

The goals of the parent outreach component were to support a rich quality of family interactions and increase family cohesiveness. Home visitors encouraged an intense mother-child relationship that involved affectionate bodily loving contacts, yielding to children's needs for self-comforting activities, and responding positively to a young child's productions or efforts to learn. A learning game was taught to each parent during the weekly home visit.

The roles of the CDTs grew as the families grew. The major role played by the CDT was that of a knowledgeable friend. The CDT often acted as adviser and confidant on many family issues. When issues arose the CDT was usually the first called. Often their advice was asked on personal relations, finances, career changes and education. Many mothers looked forward to the weekly visit from the kind listener who had her and her child's well-being as her major priority. Specifically, during weekly home visits, CDTs:

1. Taught families Piagetian sensorimotor games, language interactions and learning tasks appropriate to each child's developmental level. Particular emphasis was placed on helping parents carry out such learning games in the context of warm and loving interactions with children during daily routines and care situations.

2. Provided nutrition information, explanations, and demonstrations for families.

3. Modelled processes of interaction that facilitate involvement and enjoyment by children engaging in cognitive and language activities.

4. Offered positive support and encouragement to the mother as she herself carried out a given activity with her child. The mother rather than the child was the focus of the home visitor's attention and teaching.

5. Helped the mother to learn ways to modify games and activities so that the child was more apt to maintain interest in an activity and to learn. Meeting the "match" developmentally between parental learning goals for a child and the child's current developmental capability requires sensitive attention to the unique individual characteristics of a particular child.

6. Developed friendly working relations with personnel in service agencies and served as a liaison person between available community support services (such as pediatric clinics, food stamp programs, and legal counseling services) and the family. Community liaison function expanded and varied as the needs of the family were clarified or new needs arose.

7. Facilitated family members in taking an active role in their child's development. This involved helping families learn to find and use neighborhood resources and learning environments, such as libraries, supermarkets and parks.

8. Enchanced mothers' ability to observe their children's development and to devise their own appropriate learning games and activities as children continued to grow.

9. Responded positively and actively to the parent's need to fulfull her aspirations for herself. It was hypothesized that parental feelings of self-confidence and self-competence generated as the mother undertook a job or job training or further schooling would be reflected in more secure and positive relations between parents and child. Personal attention and friendship were offered to the mother by her home visitor. Different families need different personal support strategies.

10. Encourages the mother to take an active role in the child's classroom and school, when a child was ready to enter public school. Mothers were given specific practice in learning how to make and maintain contacts with school personnel (and how to assess classroom interactions) so that the parents could continue to be positive educational agents and advocates for their children in the public school system (Honig, 1982a, pp. 51-52).

The home visitors did a good deal of liaison work with the Children's Center teachers. "They eased misunderstandings that could arise over messed rompers or lost mittens. CDTs alerted teachers to situations at home that could change a child's sociableness or responsiveness to adult expectations and to newly introduced learning situations" (Lally & Honig, 1977b, p. 29).

One baby did not dare to touch a doll to examine and label its features. His father punished him severely at home if he tried to play with a doll, since the father believed that doll play would cause homosexuality. Another child was causing major concern because of sexual acting out in the classroom. The CDTs explained what the parent had not to the teachers. The little girl had recently lost her beloved grandfather, her only male adult parenting figure and was much disturbed by this loss. Thus, in myriad ways, the CDTs served families not only directly, but indirectly.

The home visitors also created toy and book lending kits that parents could borrow freely. During the weekly home visits to families, each CDT also listened empathically to personal troubles. After each home visit, CDTs filled out a Weekly Home Visit report. Once a week they escorted parents and any siblings to the Children's Center (the day-care component of the FDRP) for parent meetings, at which toy making, tye-dying, child-sized cardboard furniture making or other constructive activities took place. During the once-a-month nightly parent meetings CDTs also helped by providing transportation to parent meetings.

Weekly all day in-service training and review of formative evaluation information with their own supervisor as well as with the Program Director and Project Director furthered the home visitors' understanding of the aims, purposes and methods of the Piagetian and other learning activities (Lally & Gordon, 1977) taught to parents each week.

These in-service sessions also provided opportunities for full discussion of difficult problems with case study analysis and group problem solving. Almost every week a serious problem that faced one of the families was presented and strategies were drawn up with regard to the action the CDT or other project staff should take. Often strategies were shared among CDTs with one who had already faced a problem, explaining possible approaches to a CDT with a similar problem. One CDT shared her frustration when week after week the home she visited was very chaotic. One day on arriving with wet snowy boots, she asked the mother if she could please find some newspapers so those drippy boots would not mess up the mother's apartment during the home visit. "You know," she explained earnestly to the mother, "I sure would not want somebody messing up my

apartment with snowy muddy boots. I would really appreciate it if you could get some newspapers and I will leave my boots outside." The young mother agreeable found some newspapers. She also found ways during the next weeks somehow to straighten her own living place so that there was a clean place to sit down and more of a sense of order when the CDT came.

In-depth interviews with mothers, three years and five years after home visiting was initiated, generated overwhelmingly positive responses to the role and contributions of the home visitors. This positive response occurred even when mothers had missed many appointments.

Patience, courtesy, caring, and persistence were qualities the CDTs gave generously. As one mother remarked in response to the question "If your CDT has helped you, how has she been the greatest help?": "She's very understanding. She's gone through a lot with me. I don't answer the door or phone. It takes a person with a lot of nerve to try to see me. If she weren't so patient and understanding, my child wouldn't be in the Center. I don't think most people would put up with someone like me. I know I wouldn't!" (Honig, 1979, p. 53). Other comments about the CDT included: "She's always there to contact for every problem"; "She likes her job more than just for the money"; She's not afraid to come into my house and eat my cooking"; and "She's one of the best friends I've got." (Honig, 1979, p. 54).

Choosing paraprofessionals as CDTs was an important project decision. The young mothers could identify with paraprofessionals who had come from a poverty background themselves and could serve as role models of competency. The CDTs were not only parent educators. They identified strongly with the needs of the families they served and felt themselves to be the most knowledgeable advocates and supports for parents in the project.

Staff-parent relationships. Child Development Trainers were the critical link in parent-staff relationships. When parents were first becoming acquainted with staff and each other they often did so in the company of their CDT. Because children were bussed to the Children's Center daily contact with teachers was rare. Therefore staff created a welcoming atmosphere for parents, whenever the parents visited whether on a drop-in basis or for the occasional all-you-can-eat spaghetti, salad, and French bread suppers held at the Children's Center. During these suppers, slides were shown of the children in their activities. Teachers invited parents on a tour of the classroom areas, with the children proudly showing off "their" school. Polaroid pictures of the children were often given to parents who attended these events. Annually, an Open House was held. Parents baked cookies and helped prepare invitations. That they felt most welcome in the Children's Center seemed evident as they arrived with neighbors, friends, and relatives to attend the gala occasions of Open House.

Teachers further maintained positive relationships with parents by safety-pinning a "Memo to Mommy" note daily on each child's clothing. This note might contain a teacher appreciation of a toddler's fondness for another tot as a special friend, or a child's new skill in stacking six blocks, or venturing to try finger paint, or eating squash for the first time, or daring (finally) to pat the gerbil's fur as teacher carefully held the animal. Sometimes, a "Memo to Mommy" note brought a prompt telephone

call of disbelief and relief, as when the note simply said "Jason did not bite anyone today.

## The Parent Organization

As the project progressed parents met and formed formal and informal associations. The formal parent organization met monthly, had elected officers and functioned in similar ways to Head Start parent organizations. This group critiqued project plans, organized parent, child and center events and engaged in program advocacy. Another organization was called the Children's F.O.R.C.E., Families Organized for the Rights of Children in Education. This group of parents was specifically concerned about the continued education of their children after FDRP. They organized, asked for training in classroom observation and for information about parents rights with relation to the schools. They set about observing in the Syracuse kindergarten and 1st grade classrooms and making their findings known to program parents so that they could make informed decisions about requests and demands for what they felt was proper placement for their children. A number of parents formed informal units for the purpose of purchasing food and supplies in bulk and at reduced prices. Two single parent mothers who met in the program moved in together as a means to pool their resources and share evening child care responsibilities.

## The Children's Center Component

The Children's Center, a pioneer child care and educational facility for infants, toddlers and preschoolers, was founded in 1964 by Dr. Bettye Caldwell under a grant from the Office of Child Development. When FDRP began the Children's Center already had a well trained staff and a strong reputation in the Syracuse community and nationally because of Dr. Caldwell's earlier work. This made recruitment and startup of FDRP a relatively easy process. In 1969, Dr. J. Ronald Lally became Project Director. He recruited a new population of families with infants, all from low income families, born in 1969, 70 or 71 and started the FDRP. He added the home visitation component and also implemented an open-education model in the Children's Center for the children from 18 to 60 months of age. Dr. Alice Honig remained Program Director and supervised staff training and assessments of the multiple components of the Family Development Research Program.

The Children's Center served children from all parts of the city. Children were picked up by bus driver and rider each morning and delivered home in the late afternoon. The manner of greeting and dropping off children was emphasized. The bus was equipped with special infant safety belts. Drivers and riders received in-service training so that the bus experience too could promote the social/cognitive/language goals of the program. Style and content of interaction were stressed. Each child was to be treated as a prince or princess. The bus driver even wrote a report on what Piagetian sensorimotor and preoperational learnings the children would experience on a bus trip to visit a park or the zoo or the airport!

Staff training. All the caregivers and home visitors in FDRP participated as did all staff, including the cook, secretarial staff, researchers, testers, and, as mentioned above, bus drivers and driver aides, in intensive annual two-week training sessions each fall. Personal renewal and revival of motivation occurred as well as learning of increasingly subtle child observation skills and refresher understandings of Piaget, Erikson, etc.

During the year, staff held weekly case conferences, in which the progress, problems, and strengths of a particular youngster were discussed in depth. Every staff member who could contribute to a child's experiences at the Center was invited to participate in these case conferences. Plans were drawn up for possible ways to enhance the child's participation in program. For example. one preschooler who was beaten sometimes by his young mother's boyfriends seemed to have difficulty in concentrating on cognitive activities. He preferred running and found it hard to focus attention. Since he loved ball games, the teachers cut out paper footballs of varying sizes to interest him in size seriation. A small basketball hoop was erected on the outside play area to involve him in near and far shots. Several staff members participated in devising ways to help this particular child. Input from every staff member was valued when such a problem arose, and over time many became more skillful in helping individual children. The general philosophy was that the enhancement of staff skills was as integral a part of program as helping the children to flourish.

The Children's Center, lodged in a huge church basement, consisted of three main groupings designed to accommodate developmental stages of the children served.

## Infant-Fold

Infants 6 months to 15 months were cared for in an "Infant-Fold." Each caregiver was assigned four infants. Caregivers worked in pairs with group size limited to 8 infants. The caregiver assigned to an infant was expected to form the principal relationship with the child. The assignment was made clear to the parents and other caregivers. The team, however, worked quite closely with one member often taking the one, two or three infants from the group of eight for a special activity while the others cared for the rest of them. This team concept also was utilized to free caregivers for food preparation, room arrangement and the like. During the half-day program, the infants received responsive loving attention, cognitive and social interactive games, Piagetian sensorimotor games, fine and gross motor activities, sensory stimulation and activities, language and book experiences. The sensorimotor domains emphasized in games created by staff included object permanence, means-ends relationships, creation of new schemas, coordination of vision and prehension, causality learning, construction of spatial understandings, and imitation of gestures, sounds, and words. All games were carried out in a climate of respect for the personhood of babies and with the goal of building basic trust. Loving persistence paid off. Even babies who initially refused eye contact or were indifferent to interactive games eventually became animated, participatory and happy in interactions with their living special persons--their caregivers.

Techniques that the caregivers used included praise and positive reinforcement for small tries, expressing pleasure at early perseverance at tasks, creating happy, non-frustrating endings for learning activity times, and carrying out games with multiple curricular purposes. For example, singing and chanting "Up and down" while smiling and using baby's name enhanced language and social participation. Lifting a baby into the air so that she could venture to stretch to touch a paper mobile hanging by a string from the ceiling provided good experiences of body cuddling, building Eriksonian trust, while promoting coordination of prehension and vision, dexterity, and spatial understandings.

"Matchmaking" (Honig, 1983) was an important technique to enhance learning. Activities were tailored to the individual level of skill and capability of each child. Small steps, "dancing the developmental ladder" (Honig, 1982b), were created by modifying learning games to increase the child's chances of being able to solve a slightly new or novel task. All caregivers were encouraged to use creativity in finding ways to embed the curriculum in daily activities, in daily care routines, and informal encounters as well as in more formal learning experiences.

## Transition Group

Babies from 15 to 18 months were in a special group with full-day care five days a week. They were offered a more varied program of sensorimotor activities. For example, they could make a zoom car go or work a jack-in-the-box. Self-feeding was encouraged, and larger spatial areas with sliding cabinets permitted more free choice of materials and encouraged early toddler autonomy. Yet body loving, comforting and emotional support remained freely available to the older babies. A handbook is available that describes in detail FDRP training procedures for preparing teachers to work with infants and toddlers (Honig & Lally, 1981).

## Family Style Education (Multi-Age Differentiated Environment Groupings

Children from 18 to 60 months were together daily in an environment designed by Margaret Lay and Dopyera (1977) akin to the British Infant School in its philosophy and structure. The children had freedom of choice and access to four major environmental areas, replicated in two modules. Teachers were stationed in each area with some teachers "floating" to particularly popular areas. Within each module, the children could choose a:

1. Large-Muscle Area: Walkboards, large building blocks and cardboard boxes, slides, rocking boats, climbers, tumbling mats, and other such equipment encouraged the children to try activities involving large-muscle and kinesthetic development. A housekeeping corner and dress-up corner invited children to carry out dramatic play and bodily expression.

2. Small-Muscle Area: Fine motor coordination was encouraged by a plethora of materials (for example: pegboards, puzzles, and stringing beads) that invited practice of prehension skills. Many of these toys were made at the Children's Center. Often they consisted of items with which the toddler was already familiar at home such as coffee cans that the child could fill with clothespins and bottle caps.

3. Sense-Perception Area: In this area materials and opportunities were provided for sensory experiences. Pasted in a cluster on a cardboard were bumpy kidney beans to touch. Stitched onto a burlap wall-hanging was a puppy whose body was made of plush. Record players and rhythm and music instruments were available here. A reading corner had a comfortable couch and reachable shelves of attractive books. Taste sampling (for example, sweet honey, followed by sour lemon) and taste mixing (honey on lemon) were included in this area's ventures. Assorted gerbils, goldfish, and terraria were also available for sensory explorations--always, of course, with the teacher's gentle assistance.

4. Creative Expression and Snack Area: Furniture groupings permitted several subdivisions of this major area, so that painting easels, a table for clay work or plastic arts, water-play tubs, sand or sawdust boxes, and a table set with mid-morning and mid-afternoon snacks were available choices for the children (Lally & Honig, 1977b, pp. 21-22).

Additionally, the children had a large variety of wheeled toys and equipment in the large gymnasium that was used in inclement weather, when the children could not go outdoors to their enclosed play area. Part of the gym served as a dormitory for the toddlers and preschoolers at nap time. In the large dining room, the Family Style children ate in groups with a teacher at each table. Parents were free to join the lunch and to visit whenever they chose.

The Family Style program was spatially structured rather than time-oriented. Several rules pertained. No physical aggression was permitted. Materials had to stay in their appropriate areas, and materials had to be cared for and not destroyed. That is, books could not be torn and puzzle pieces could not be dunked in a water play tub, nor could dolls be banged with a hammer. Thirty second time outs were used for flagrant transgressions.

Concept links were made from one area to another. For example, fast and slow could be acted out by running or walking or crawling in the large muscle room. Yet the concepts of fast and slow could also be taught in the sense experience area by singing or chanting faster or slower, and taught in the creative experience area by pouring sand fast from a cup into a pot or through a tiny hole in an orange juice can so that the sand poured slowly.

The opportunity to interact with children of different ages was used by the teachers to promote more prosocial behaviors and sensitive awareness of the differences between younger and older capabilities. One day in the lunch room a two-year-old spilt milk. The four-year-old sitting at her table looked from the puddle on the ground to the toddler's face. Then, he shook his head as if deciding that the younger child simply did not yet know the rules about cleaning up nor how to do so. He slipped off his chair, got some paper towels, and proceeded gravely to smear the milk puddle around in a helpful attempt to clean up the younger child's mess.

During the children's naptimes, the Family Style teachers often created learning activities for the children, such as a seriation game involving different size spoons in a shoe box. Or they cut up merchandise catalogues and prepared lotto games with household articles, clothing or recreational items of personal interest to young children, who could match one item with a similar one on a Center-made lotto card. Providing the caregivers encouragement and opportunities to be creative, develop and work cooperatively was an essential part of the program.

## Assessing the Family Development Research Program

The carefully spelled out goals of the FDRP program and the even more specifically defined roles and activities required of staff members made the tasks of assessment clear, if complex. A variety of psychometric tests and ecological observation measures in classrooms were administered to assess how the children were faring (see Lally & Honig, 1977a & 1977b for full details of all assessments). As noted earlier, parents were interviewed in depth after three and five years in the program to assess the effectiveness of the CDT's efforts. Weekly and Monthly Home Visit Reports permitted data gathering on the course of parental rsponsiveness to the CDT's work.

At thirty-six months of age, a longitudinal control group was established for the duration of the FDRP. The control children were carefully matched in pairs with Center children with respect to sex, ethnicity, birth ordinality, age, family income, family marital status, maternal age, and maternal education status (no high-school diploma) at time of the infant's birth. Stanford-Binet IQ scores were compared at 36, 48, and 60 months between the Center children and their matched controls. Scores for the Center and controls were also collected at 72 months.

## Short-term Impact on Child Functioning

The short-term effects of the Family Development Research Program have already been reported elsewhere (Honig, 1977; Honig, Lally & Mathieson, 1982; Lally & Honig, 1977a). A synopsis of noteworthy program effects on child functioning during and at the close of the program follows.

Cognitive Functioning. At 36 months of age program children scored significantly higher on the Binet test than their control counterparts

(Lally & Honig, 1977b). However, as the children grew older these differences disappeared. At the end of the program, when they were 60 months of age, the program and control children looked similar to each other across a variety of measures of cognitive development and intellectual abilities.

Social-Emotional Functioning. The Social-Emotional Observer Rating of Children (Emmerich, 1971) was used to observe study children in preschool, in kindergarten and again in first grade. At 36 months of age, program children exhibited superior social-emotional functioning as compared to the control children. After leaving the program and starting kindergarten, program children continued to function better than control children in the domain of social-emotional functioning. During the time they were in first grade, program children continued to behave in positive ways toward other children but their behavior toward the teacher had changed. Program children displayed significantly more positive and negative behavior toward adults than control children did. Program children sought out teachers through many more negative bids than when in preschool or kindergarten and were observed to smile and laugh less frequently. In a complete report of this investigation, it was hypothesized by the researchers that the expectations of the children for personalized attention from the teacher were being violated, and their behavior changed accordingly (Honig, Lally & Mathieson, 1982). A number of parents reported that their children were frustrated with their school experiences, with one parent reporting that her child complained, "I'm not learning anything."

Whether it was the discrepancy between their expected interactions with teachers in preschool and first grade or some other factor that contributed to more negative behavior in program children, it is clear that the transition from the intervention to school went hand in hand with changes in social emotional behavior. This pattern corresponds to that found by Haskins (1985) in a study of an infant/preschool program which, though it emphasized cognitive goals rather than a balance between cognitive and social emotional goals, is in many respects comparable to the Syracuse intervention. Haskins reported that program children in his sample exhibited an increase in negative social emotional behavior once they entered the public school system.

## Section Two

## Longitudinal Follow-Up Study: Major Findings 10 Years Later

The follow-up study was comprehensive in nature. We sought to gather information on the functioning of the study children in school, in their family, and in the community. We also wanted to investigate family functioning, both the family as a unit and how it relates to the community. Data were gathered from school records, court records, probation department records, and the like. In addition, teachers were asked to complete a questionnaire that involved rating the academic and social functioning of each study child in their class. The follow-up data collection also consisted of interviews with the study children and one of their parents or guardians. In almost all of the cases the parent interview was conducted with the study child's mother. The interview session was multifaceted. Parents completed a demographic data form, filled out questionnaires, and responded to open-ended questions on their perceptions of their child's school and social functioning, the quality of their family life, their aspirations and the like. The study children completed a questionnaire and responded to various interview questions about their functioning in school, their social attitudes and behavior, their family life, their aspirations and so forth. The entire interview session lasted 2 to 2 1/2 hours. Parent and student interviews were conducted separately, usually in different parts of the home. The interviewers were advanced students in one of the helping profession fields. They were kept blind to family status in the study (program or control).

### Research Sample

Of the 108 children who started the program, 82 completed the full five year intervention. Seventy-four of the matched controls remained in the sample through 60 months of age as well. Nine years later, when the longitudinal study commenced, we were able to obtain informed consent from 65 program families, which was 79% of the families who finished the program, and 54 control families, which was 73% of the control families who were still in the sample at 60 months of age. Two additional program and 2 additional control families were found, but these 4 families would not sign consent forms and were consequently dropped from the study.

We found the families for the follow-up study through various means. Publishing announcements that listed child and family names in local newspapers and distributing information about the study in local schools helped us make contact with a substantial number of families. Once families were aware that the study was taking place, many would contact the research team and arrange to participate. Occasionally friends of a study family would either contact the research team or their friends, who would in turn contact the research team. Lists of other study families were shown to those already located; sometimes study families could help us locate a few other families. These procedures helped us find about 80% of

the families who consented to participate in the follow-up study. Finding the last 20% of the follow-up sample was much more difficult. We hired a recruiter who had vast experience doing community work in low income neighborhoods. He located families through informal conversation on the street and, ultimately, through developing a network of contacts in the neighborhoods where study families lived. It is noteworthy that this group of "hard-to-find" families who were eventually found and who consented to participate, about 20% of all families in the follow-up sample, consisted of by and large the least organized and least stable families in the entire sample.

Contact with the families was made by the research team first to obtain signed permission forms and then later to schedule and conduct parent and child interviews. Maintaining contact with the families turned out to be difficult in a substantial number of cases. A subgroup of families within the sample moved frequently, often without leaving a forwarding address. Some lost telephone service, some would fail to be home at an appointed time for an interview, or, in a few cases, because of severe problems in the family such as domestic violence, some avoided having continued contact with the research team. As it turned out, parent interviews were conducted with 51 of the 65 follow-up program families and 42 of the 54 follow-up control families. For the child interview it was possible to perform 49 out of 65 possible program sample interviews and 39 out of 54 possible control sample interviews.

What the above data indicate is that it was impossible to maintain contact and conduct interviews with about 25% of both the follow-up program and control families from whom we were able to obtain parental consent. This is only part of the story, however. It was much easier to maintain contact with and perform interviews with 75% of the program families in the follow-up sample than with 75% of the control families. The last 10 interviews (about 25%) conducted with control families required an enormous amount of patience and persistence. Interviewers would arrive at a home at an appointed time only to find no one there. About half of these families had no telephone, so someone from the research team would have to stop by until the family was at home. Unlike the families with whom it was easy to maintain contact and conduct interviews, the "hard to study" families were very impoverished and disorganized. The larger proportion of the "hard to study" families in control follow-up sample, 25% of the control group interviewed versus 10% of the program group interviewed, was one indication that a substantial sub-group of families within the control group was functioning poorly.

Both the program and control follow-up samples did not differ from the make-up of the program and control samples at the close of the intervention. Attrition was studied by comparing the follow-up program sample with the original program sample, and the follow-up control sample with the original control sample on the following variables:

1) child's Stanford-Binet score at 48 months of age;

2) mother's years of education by the 60 month interview;

3) mother's age at the birth of the study child;

4) the presence or absence of a father figure in the house;

and

5) family's annual income level when the study child was 60 months old.

The follow-up program sample was not significantly different from the original program sample, and the follow-up control sample was not significantly different from the original control sample on the 5 above variables.

## Demographic Profile of Follow-up Sample

There was wide variation in the social and economic circumstances of both the program and control follow-up families. On one end of the continuum were two-parent families with both the mother and father earning average to better than average incomes. At the other end of the continuum were single-parent families that were completely dependent on public assistance. The majority of families in both the program and control follow-up samples, though not at the extreme, fell at the lower end of the continuum. As Table 1 shows, single-parent families with the mother working at a low wage made up a good part of both samples. This table also shows that the program follow-up sample consists of more single parent households than the control follow-up samples, though this difference is not statistically significant.

## School Functioning

School Record Data. The Syracuse intervention had a positive impact on the school functioning of girls. This positive effect on the program girls started to appear during early adolescence. An analysis of grade report data, mostly for 7th or 8th grades, indicated that none of the program girls was failing school, while 16% of the control girls were found to have failing grade averages. Moreover, 76% of the program girls were performing at a C average or better, while only 47% of the control girls were performing at this level. This difference between program and control girls was statistically significant. When we analyzed recent grade report data for the boys no differences resulted between the program and control group.

School attendance data paralleled patterns found in the school grade report data. We were able to obtain school attendance data for four school years, 1981-82, 1982-83, 1983-84, and 1984-85. Poor school attendance was defined as having 20 or more absences from school, which was a criterion used in another intervention follow-up study (Seitz, Rosenbaum & Apfel,

TABLE 1

Median Family Income of Single-Parent and Two-Parent Households in Program and Control Follow-Up Samples

| | Program n=45 | Control n=39 |
|---|---|---|
| Family Income | | |
| Single-parent Household | $10,000 | $9,960 |
| Two-Parent Household | $34,500 | $25,500 |
| Family Structure | | |
| Single-Parent Households | 78% | 64% |

Note. In a few cases two-parent households were made up of two wage-earning adults.

1985). The analysis of the first two years of attendance data resulted in no difference between the program and control group, for either girls or boys. In year three, however, 14% of the program girls, as compared to 50% of the control girls, had more than 20 absences. And in year four, none of the program girls had more than 20 absences. In contrast, a significant percentage (31%) of control girls had more than 20 absences. No such differences were found between program and control boys.

Unlike recent school data, information on the elementary school years indicated no differences between the program and control group. Grade retention in both the program and control group was similar to that in the entire Syracuse City School District. (As an aside, it is noteworthy that the Syracuse City School District, where all of the follow-up sample started school, and where over 85% of the study children are still enrolled, has had over the last decade a strong tendency to retain students. Using an age by grade data matrix provided by the Syracuse Schools, we estimated that about 60% of the students in the school district have been retained at least once by the time they reach 9th grade.) Finally, rate of placement in special education was similar for both the program and control groups for the school years 1980-81 through 1984-85.

Teacher Ratings. A questionnaire that consisted of 96 items was distributed to three current teachers of each of the study children (n=119). Items on the questionnaire covered a variety of topics including the child's commitment to schooling, behavorial dispositions (e.g. animated and enthusiastic or depressed), confidence and social behavior (e.g. aggressive toward peers or friendly). Children were rated on each of the items according to a 6-point scale that ranged from "describes very well" to "does not describe well at all."

We were able to collect at least one completed questionnaire for 101 follow-up children. Since data from two or more teachers were available for only 46% of the 101 children for whom completed questionnaires were returned, we decided to use one questionnaire per child. For children for whom more than one questionnaire was available, one was randomly selected to be used in the analysis of teacher ratings.

Hans (1987) applied a facet theory analysis (as described by Guttman, 1980) to the questionnaire items. A set of facet categories was defined apriori according to a mapping sentence. This procedure resulted in 12 facet categories. These categories were in turn used to categorize the teacher questionnaire items; forty-three items fit into the category structure across 8 facet categories. (Chart 1 lists of these 8 categories with examples.) Four categories failed to account for any items, and items failing to fit into the structure were not further analyzed. In order to study the hypothesis of a correspondence between the apriori category structure and the empirical organization of the 43 items, a smallest space analysis was applied to the data (Guttman , 1980). There was a high degree of correspondence between the facet categories defined apriori and the empirical organization of the 43 items resulting from the smallest space analysis. Although not necessarily part of a facet theory approach, sum scores for each of the categories were then computed, standardized, and used as a set of dependent variables in a multivariate analysis of variance with program and sex as independent factors in the analysis.

Chart 1

Eight Facet Categories Used to Categorize 43
Teacher Questionnaire Items

**Direction of attitude toward self**

Examples: Seeks constant reassurance. (-)
Is animated and enthusiastic. (+)

**Direction of attitude toward other people**

Examples: Is friendly. (+)
Gets pleasure from working closely with another student. (+)

**Direction of attitude toward school**

Examples: Takes pleasure in a job well done. (+)
Values school and school activities. (+)

**Involvement with school situation**

Examples: Is motivated to work and expends effort. (+)
Is alert and interested in school work. (+)

**Achievement with regard to other people**

Examples: Is well received by other pupils. (+)
Has few or no friends. (-)

**Achievement with regard to school**

Examples: Is good at school work. (+)
Reads poorly. (-)

**Control of impulses with respect to other people**

Examples: "Loses head" easily. (-)
Would hurt someone just for the "heck of it". (-)

**Control of impulses with respect to school situation**

Examples: Requires continuous supervision. (-)
Is easily led into trouble. (-)

A multivariate analysis of teacher ratings resulted in a significant program group x sex interaction effect. To interpret this interaction effect, univariate analyses of variance were computed separately for the males and females; program group was the independent variable in this analysis. No significant group differences resulted for the males. However, program girls were rated as having more positive attitudes toward themselves and toward other people than control girls. Teachers also indicated that program girls had greater achievement in school and better control of their impulses with respect to other people. On the other four dependent variables, the mean scores for the program girls, though not significantly different, were always more positive than for the control girls. Figure 1 plots the mean scores for each sex and program group on each of the eight variables.

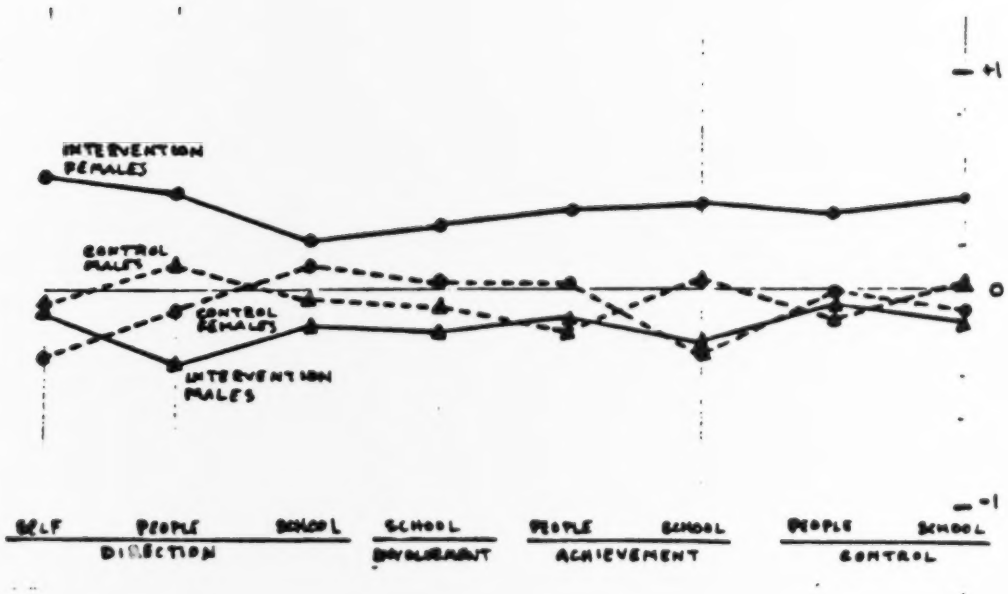
Thus, teacher ratings showed that program girls were functioning better than control girls in the areas of self-esteem, feelings toward others, control of aggression toward others, and achievement in school-related skills. The superior functioning of program girls found in the teacher data corresponds to the findings from the analysis of school record data, which revealed that program girls were performing better in school and more regularly attending school than control girls. Taken together, these data showed that the intervention clearly benefitted the program girls in the domain of school functioning.

Family Interviews. The parent and study child interviews consisted of open-ended questions on such topics as their use of leisure time, values, concerns, aspirations, accomplishments, and support systems. A content analysis was applied to the interview responses to identify categories for classifying them. Before categorizing interview responses, data coders segmented each response into thought units. A thought unit was defined as one piece of information in a response. For example, in response to the question in the parent interview on what advice she would give to a young parent on how to raise children in today's world, a mother said, "Listen to what they have to say, and teach them about morals." In this response there are two thought units. The first was, "Listen to what they have to say," and the second, "teach them about morals." Once thought units were identified for a response to a particular question, each one was categorized into one of the categories defined for that question. Inter-coder agreement ranged from 71% to 86% (median=79%) across the coded responses for all questions. In the above example, the first thought unit was categorized as "Be Open or Responsive," and the second unit as "Teach Values." Major trends will be presented here for each of the parent and study child interviews.

Parent Interview. The most prominent findings in the comparison between the responses of program parents and those of control parents pertained to the parents' comments about what made them feel proud about parenting, and the kind of advice they would give to children growing up in today's world. In response to a question about what made them feel proud about raising their children, 28% of the program parents talked about their child having a prosocial orientation while only 10% of the control parents did so. An example of a thought unit that was coded as prosocial was, "He cares about other people." In addition, a significantly higher percentage of program parents (18% vs. 5% of control parents) mentioned that unity in their family made them feel proud of their parenting effort. Responses

Figure 1

Mean Scores for Eight Facet Categories of Intervention and Control Males and Females



that were coded as indicative of family unity included, "We're all close with each other" and "We stick together."

When asked about what advice they would give young people today, 29% of the program parents said that they would advise young people to learn something about themselves and do everything they are capable of accomplishing. A significantly lower percentage of control parents (only 5%) expressed that they would give such advice. Thirty-three percent of the control parents, in contrast, responded cautiously, saying they would advise young people to avoid having too high of expectations and instead concentrate on getting by. Only 14% of the program parents said they would give such advice.

In sum, in comparison to control parents, program parents report feeling proud about the prosocial attitudes and behaviors of their children and the quality of family unity in their family. They also would more likely advise young people to seek to reach their full potential, while control parents would more likely counsel young people not to expect too much.

Child Interview. In response to a question about what they liked about themselves, program children significantly more often expressed that they liked one or more of their physical attributes (e.g. their appearance or physique) than control students did. There was also a trend in which program children indicated liking one or more of their personal attributes (e.g. their personality or sense of humor) more frequently than control children. When asked what they disliked about themselves, program children tended to say "nothing" more often than their control counterparts. Taken together, these findings suggest that program children feel more positively about themselves than control students do. These results are shown in Table 2.

Other differences between program and control children in the analysis of interview data were in the area of school life and in the way they handle problems. In answer to a question about what they see themselves doing in five years, many more program children envisioned being in school, while control children tended to foresee having a job and being on their own. Another question about school asked the children to talk about the "worst things about school." Twice as many control students as program children responded to this question by saying "getting in trouble." In another domain, when asked about what they would do if faced with a serious problem, a significantly higher percentage of program children stated they would take an active approach to the problem. An example of an active response was when the children were asked what they would do if they were failing a class. Responses to this question that were coded as active included "going and talking to the teacher," "talking to my counselor," and "finding out if there was extra work I could do." If the children could not come up with a way of handling the problem or simply responded "nothing" in answer to the question, the response was coded as passive. These findings from the child interview are tabulated in Table 2.

TABLE 2

Student Perceptions of Themselves and Their Schooling

| | Percent of Program Students | Percent of Control Students | Chi Square |
|---|---|---|---|
| Like Physical Attributes | 33 | 14 | 3.89* |
| Like Personal Attributes | 31 | 14 | 3.18** |
| Dislike Nothing About Self | 31 | 14 | 3.18** |
| In School 5 Years From Now | 53 | 28 | 4.59* |
| Working 5 Years From Now | 35 | 51 | 2.93** |
| Worst Things About School Trouble | 17 | 34 | 3.44** |
| Would Make Active Response To Problem | 63 | 37 | 4.09* |

*$p < .05$
**$p < .10$

In sum, the analysis of the child interviews indicated that, as compared to control children, program children feel more positively about themselves, envision education being a continued part of their life, and tend to report that they would handle problems more directly and actively. The more positive outlook reflected in the interview responses of both parents and students coincided with more positive functioning of program children in their community, as reported below.

## Juvenile Deliquency in Program and Control Children

The strongest evidence of program and control children's functioning in the community came from involvement in the juvenile justice system. For this follow-up study effort, we sought to investigate the incidence, severity, and cost of juvenile delinquency in the program and control samples by collecting data from the Probation Department and court records. Data were available on 65 program children and 54 control children, ranging in age from 13 to 16 years old. The data on the incidence and severity of juvenile delinquency in the sample were collected from probation and court records by a specialist in social work.

Cost data were also collected in the study of juvenile delinquency. Fiscal officers from various agencies were interviewed to determine appropriate procedures for estimating the cost of each case identified in the longitudinal sample. Estimated costs included the cost of court processing, probation supervision, placement in foster care, non-secure detention and secure detention. The least severe cases, i.e., those in which the child was, on request by the parents, judged ungovernable or not under the control of the family, often required placement in foster care, which was the least expensive form of out-of-home care administered by the county probation department. The most expensive form of out-of-home residence was secure detention. Only the most severe cases in the research sample required secure detention. In general, those cases that involved delinquency often necessitated more extensive supervision by the probation department. The cost of supervising severe or chronic offenders was estimated from records that documented the amount of staff time devoted to each case.

Analysis of the data on juvenile delinquency revealed sharp differences between the functioning of program and control children. Only 6% of the program children in the follow-up sample as compared to 22% of the control children have been processed as probation cases by the County Probation Department. Moreover, the severity of the offenses, the degree of chronicity and the cost of the cases were much higher in the control group. Table 3 shows that three of the four probation cases in the program group were ones in which the study child was found to be ungovernable or not under control of his parents at home. The other program case was a one-time juvenile delinquent. Table 3 shows a much different picture for the control group. Five of the 12 control cases involve chronic offenders. Control children have committed much more serious delinquent acts including burglary, robbery, physical assault and sexual assault. In addition, the cost to the court and the probation department for handling the cases was far greater for the control group.

TABLE 3

Summary of Probation Cases in the Syracuse Family Development Research Program's Longitudinal Sample

| PROGRAM GROUP (n=65) | | | CONTROL GROUP (n=54) | | |
|---|---|---|---|---|---|
| Sex of Subject | Case Type/Offense | Number of Times | Sex of Subject | Case Type/Offense | Number of Times |
| Female | Ungovernable | 2 | Female | Juvenile Delin. | 1 |
| | | | | Petit Larceny | 2 |
| Female | Ungovernable | 1 | Female | Ungovernable | 2 |
| | | | | Juvenile Delin. | 1 |
| Male | Ungovernable | 1 | Female | Ungovernable | 1 |
| Male | Juvenile Delin. | 1 | Male | Petit Larceny | 1 |
| | | | | Ungovernable | 2 |
| Total = 4 | | | Male | Ungovernable | 1 |
| | | | Male | Criminal Mischief | 1 |
| | | | | Violation of Probation | 1 |
| Total Cost of Cases = $12,111 | | | | | |
| | | | Male | Sexual Abuse | 1 |
| | | | Male | Ungovernable | 2 |
| | | | | Attempted Assault (2nd) | 1 |
| | | | Male | Robbery | 1 |
| | | | | Assault (2nd) | 1 |
| | | | | Robbery (2nd) | 1 |
| | | | Male | Burglary | 1 |
| | | | Male | Juvenile Delin. | 1 |
| | | | Male | Ungovernable | 1 |
| | | | Total = 12 | | |
| | | | Total Cost of Cases = $107,192 | | |

For the program group, the estimated cost per child (n=65) was $186, and for the control group, the estimated cost per child (n=54) was $1,985.

The findings in the area of juvenile delinquency correspond to those found in the longitudinal study of the Perry Preschool Project. (Berrueta-Clement, Schweinhart, Barnett, Epstein & Weikart, 1984). Both studies suggest that the association of high quality early education and family support with reduced delinquent behavior later on merits much more intensive investigation. We plan to continue to study the Syracuse sample to see if the differences between the program and control group in criminal activity extend into adulthood.

## Discussion of Findings

The Syracuse Family Development Research Program clearly had a positive impact on the children and families who participated in the intervention. Thus far, the strongest program effects have been in the domain of social deviance and functioning in the community. The findings reported in this study correspond to other research that has shown high quality early childhood programs prevent the incidence and severity of juvenile delinquency in children from low-income communities (Berrueta-Clement et al., 1984). The Syracuse children are still young. To the extent that early delinquent behavior predicts later criminality, we would expect the gap between the program and control group to increase. It is conceivable that the costs of criminal involvement in the control group, as compared to that in the program group, will continue to mount.

In addition to the findings on juvenile delinquency, family interview data indicated that program families tended to value prosocial attitudes and behavior, education, and family unity. Likewise, program children tended to express more positive feelings about themselves, take a more active approach to personal problems, and see schooling as a vital part of their life. Thus, the program appeared not only to prevent severely deviant behavior, but also to be associated with more positive attitudes and values in the children and parents. The message that came across in the interview from the program families was a proactive approach to life or a belief that one can act to better one's circumstances, that one can take steps to reach one's full potential. This stood in contrast to the control families, who tended to emphasize that one should seek to survive or get by.

In the domain of school functioning, the program girls benefitted from the Syracuse intervention. Multiple sources of data support this conclusion including school grade average data, school attendance data, and teacher ratings. Though strong, these positive effects on school functioning did not start to appear until the program girls entered junior high school.

Another major early intervention study, the Early Training Project (Gray, 1983; Gray, Ramsey & Klaus, 1982), indicated that an enduring effect of a high quality preschool program (for 3 and 4 year-old children) was a more positive impact on the school performance of program female children than on male children. Gray (1983) offered several possible explanations for this sex difference in the program group. The two most plausible explanations in her view were either a sample fluke or that the transition to a public school enviornment was more difficult for the

program boys than for the program girls. The Early Training Project gave the children a great deal of freedom. Gray speculated that boys in the preschool used the freedom more than the girls and that, once the children entered school, it was more difficult for the boys to adapt to a more restrictive environment.

The Syracuse Program differed from the Early Training Project in many ways including the length of the intervention, and specific research sample characteristics. Yet, a similar sex difference in school functioning was found in both studies. This makes less plausible the explanation that a sample fluke can account for the superior functioning of both programs' girls in school.

In the Syracuse sample, the transition to elementary school was difficult for boys as well as for girls. No sex differences were found in the analysis of social emotional functioning of program children in first grade. In both the program and control samples, girls were retained less often than boys during the elementary school years. However, only program girls showed improvements in school functioning as they entered junior high school. In effect, the Syracuse program strengthened the long-range school functioning of girls but not boys. It may be that for a number of reasons the school years are more difficult for the black male child (Stevens, 1982). Perhaps the impact of the intervention was not strong enough for the program boys to counteract an elementary school experience that routinely involved restrictions, conflict and failure. This suggests that, to be optimally effective, intervention programs need to continue in some form throughout childhood, at the very least to support the positive effects of early intervention in a child's life.

One finding uncovered while doing this follow-up study must be addressed. We encountered what we believe to be a serious methodological issue in doing longitudinal research with low-income, "multi-risk" families. Both the "hard to find" and "hard to study" families were families whose long-range outcomes tended to be negative. This may have led to a positive bias in the follow-up data for both the Syracuse program and control follow-up samples, though this positive bias was much more pronounced in the control sample. As it was, in investigating the incidence and severity of juvenile delinquency, we found many more control children in serious trouble. Of the last 10 control families interviewed, each interview having required a tremendous effort to do, 6 of the families had a study child involved in juvenile delinquency. Thus, in order to obtain results that are as accurate as possible, an investment must be made to find and study those families who are most difficult to find and study. Moreover, appropriate measures of difficulty in retrieving and investigating a follow-up sample need to be developed. With such measures, it will be possible to gauge more precisely the degree and type of attrition in longitudinal follow-up samples and how such attrition affects the interpretation of comparisons between program and control follow-up samples.

Finally, it is important to discuss, in general terms, just what worked, what did not and what we would recommend for future longitudinal interventions with similar populations. Although it is almost impossible to separate out the specific effects of parent participation from the child's participation in the Children's Center, it seems clear that our

original notion to involve families intimately as intervention agents paid off. The advice that program parents gave their children about how to function in life and the things program parents report they take pride in with regard to their parenting as compared with control parents seem key to the prosocial, motivational and educational differences reported in this chapter. One hypothesis that could be generated for the differences in the samples that appear at junior high school age is the continued input from parents after intervention ceased.

One discouraging finding was the relatively little impact the program had on family income and career advancement. It became painfully clear as follow-up data were being collected that many families, both program and control, still lived in poverty and in neighborhoods that they considered dangerous and harmful to the development of their children. A number of children interviewed discussed the discrepant goals of school and neighborhood and the difficulty they had integrating the two. We had hypothesized at the start of the intervention that the permanent environment in which the child was raised would have a continuing effect on the child well after intervention ceased and that is why parent participation was so strongly emphasized. What was not emphasized strongly enough was the power of the neighborhood and the need for special supports during the transition from program to school.

In many ways our program has been very successful, as our data suggest, with both the program boys and girls served. We feel that the findings would have been even more powerful if certain actions would have been taken. In future programs of this type we feel that it would be wise to design the program with three things in mind. One, that developmental transitions be carefully planned for, such as the transition from preschool to school, and that an innoculation approach (intervention ending abruptly) be avoided. Two, that the service institutions and agencies that are already a part of the existing community, including informal neighborhood organizations, be intimately involved in the creation and continuation of the intervention. Three, that programs be designed more dynamically and with opportunities to change and adapt services based on continued readings of the changing family needs.

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